City of Seattle

Department of Planning and Development
Diane M. Sugimura, Director

CITY OF SEATTLE
ANALYSIS AND DECISION OF THE DIRECTOR
OF THE DEPARTMENT OF PLANNING AND DEVELOPMENT

INTRODUCTION

This document pertains to the Director's analysis and decision for two (2) separate but related Master Use Permits (MUPs).

The application reviewed in this analysis is for the Project 3012591 7400 Sand Point Way NE – Magnuson Park Mitigation Site. There is one off-site mitigation area proposed as mitigation for aquatic impacts that cannot be eliminated or mitigated within the Portage Bay project area.

The related application is: Project 3012585 SR 520 Portage Bridge Portion

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ANALYSIS AND DECISION

1 Application 3012591 7400 Sand Point Way Northeast – Magnuson Park Mitigation Site

Application Number:	3012591
Applicant Name:	Kerry Pihlstrom for Washington State Department of Transportation
Addresses of Proposal:	7400 Sand Point Way Northeast

1.1 SUMMARY OF PROPOSED ACTION

SR 520 Replacement Project - Magnuson Park Mitigation Site for Portage Bay Bridge Portion (Project #3012585). Shoreline Substantial Development Permit to allow enhancement of shoreline habitat and existing wetlands and creation of new wetlands in an environmentally critical area. Work includes grading of 18,608 cubic yards of material, installation of native plant species, bulkhead removal, and associated work.

Environmental documents prepared by Washington State Department of Transportation (WSDOT) and the Federal Highway Administration.

Environmental documents have been prepared by Washington State Department of Transportation (WSDOT) and the Federal Highway Administration (FHWA). The Draft Environmental Impact Statement for the SR 520 Bridge Replacement and HOV Program was released in August 2006. A Supplemental Draft Environmental Impact Statement prepared by FHWA and WSDOT was released in January 2010. The EIS was issued on June 17, 2011.

The following approvals are required:

Shoreline Substantial Development Permit to allow grading for habitat mitigation in the Conservancy Management (CM) Shoreline Environment.

SEPA - To approve, **condition or deny pursuant to Seattle's SEPA policies.** Chapter 25.05.660, Seattle Municipal Code**.**

1.1.1 Background Information

1.1.1.1 SR520 Bridge Replacement and HOV Program

The SR 520, I-5 to Medina Project would widen the SR 520 corridor to six lanes from I-5 in Seattle to Evergreen Point Road in Medina and would restripe and reconfigure the lane channelization in the corridor from Evergreen Point Road to 92nd Avenue Northeast in Yarrow Point. It would replace the existing Evergreen Point Bridge, including the floating bridge and west and east approaches, and the Portage Bay Bridge with new structures.

Because of the difference in types of new structures, and the difference in shoreline environments in which those structures would be located, the Washington Department of Transportation (WSDOT) has applied to the City of Seattle for four separate Shoreline Substantial Development Permits (SSDP).

To mitigate for impacts caused by the Portage Bay Bridge portion of the SR 520, I-5 to Medina project that cannot be addressed within the project area of the Portage Bay Bridge, WSDOT is proposing to provide mitigation at Magnuson Park.

This decision pertains only to the Magnuson Park Mitigation Area, located north of SR 520, on the western shore of Lake Washington. See Figure 1 Project Location.

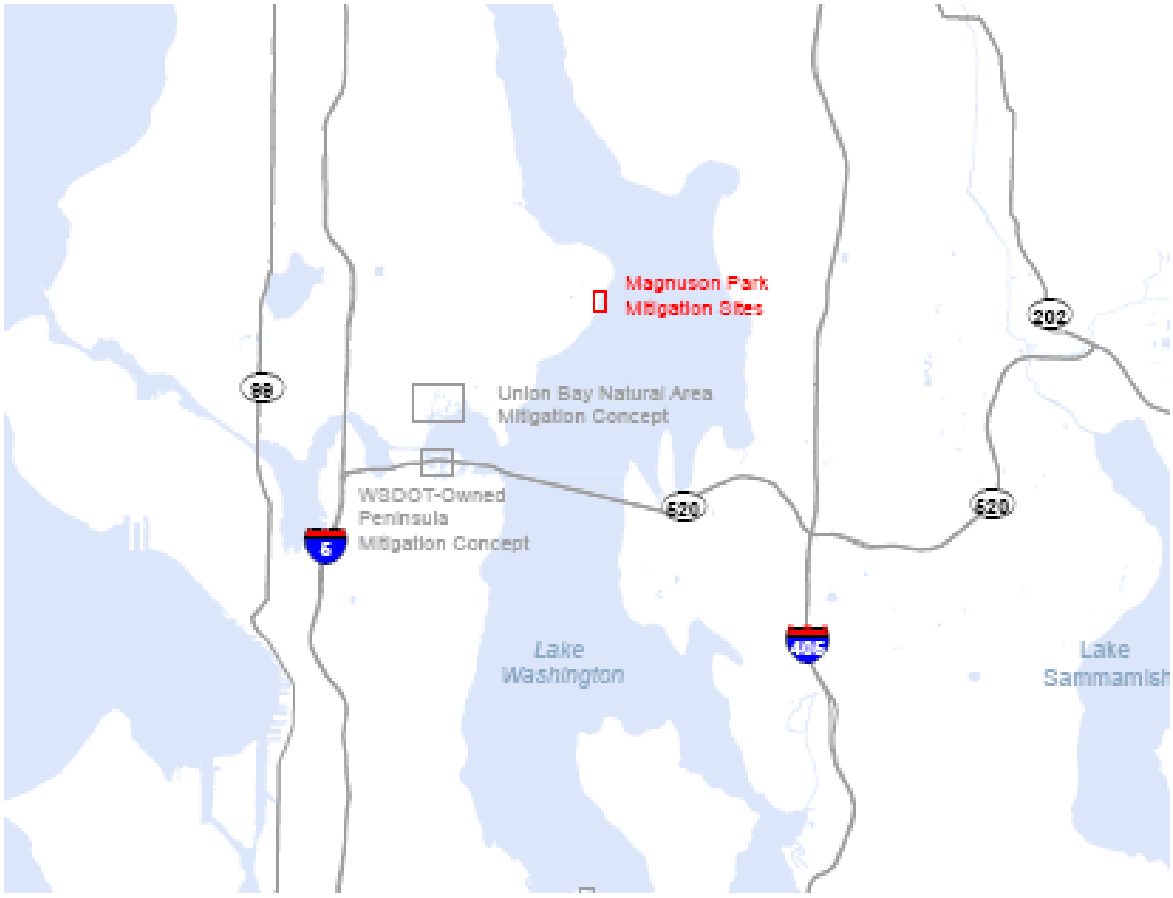

Figure 1 Project Location

1.1.1.2 Site and Project Vicinity

WSDOT proposes to mitigate project impacts to wetlands, Fish and Wildlife Habitat Conservation Areas (FWHCA), and their buffers on-site within the study area and at the Magnuson Park Mitigation Site, located on a peninsula on the western shore of Lake Washington in the city of Seattle. The Magnuson Park Mitigation Site is north of the University of Washington and about 2.5 miles north of the SR 520 Bridge. Magnuson Park, including the area proposed for SR 520 mitigation, is owned and operated by the City of Seattle as a municipal park.

Within Magnuson Park, the SR 520 mitigation site is located adjacent to and northeast of a wetland mitigation project completed in 2009 as part of Phase 2 of the Magnuson Park Master Plan (Otak 2010). The eastern boundary of the site is Beach Drive. See Figure 2 Shoreline Environments.

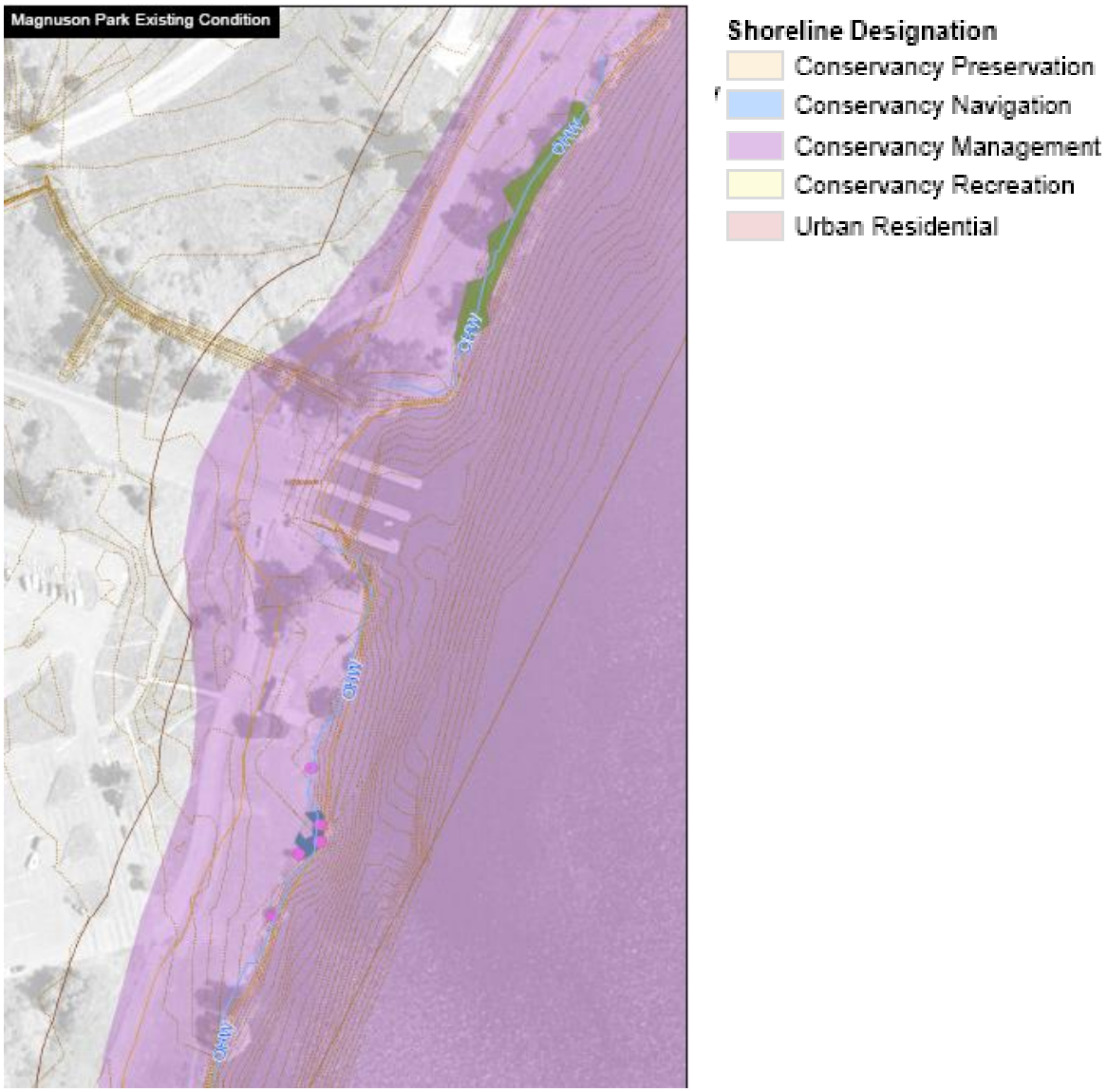

Figure 2 Shoreline Environments

1.1.2 Proposal Description

WSDOT is proposing to enhance of shoreline habitat and existing wetlands and create new wetlands adjacent to and northeast of an area in which the City performed wetland mitigation work in 2009. The SR 520 mitigation would be aligned with the larger overall ecological restoration vision and concept for the park documented in the Magnuson Park Master Plan.

Project activities would include:

- Excavation of a total of 18,608 cubic yards of material for the site, of which 1,220 cubic yards of excavation and 323 cubic yards of fill would occur within the shoreline environment.
- At Project 1 site, two cove beaches will be created that will enhance fish and nearshore habitat in this area. This action will include bank re-sloping, gravel augmentation, LWD installation and revegetation.
- At Project 2 site, a bulkhead and associated rubble will be removed to improve fish and nearshore habitat. If the existing root structure is insufficient to prevent shoreline erosion, re-grading and gravel placement will be considered. Revegetation with native vegetation will also occur. A surface water channel will also be constructed to convey flows from WSDOT's wetland mitigation site and Seattle Parks' planned habitat improvements upstream. The channel will be accessible to fish for a distance of about 100 feet but will be prevented from movement further upstream by installation of a weir or similar impediment.

Ecological benefits associated with this site are intended to provide mitigation for impacts to wetlands and aquatic habitat associated with the construction and operation of the Portage Bay Bridge portion of the SR 520 Bridge Replacement and HOV Project.

Only the excavation of 1,220 cubic yards and fill of 323 cubic yards within the shoreline environment are subject to the regulations of the Shoreline Substantial Development Permit. The remaining excavation and fill, soil replacement wetland establishment, and plant replacement will take place outside of the shoreline environment and within areas designated as environmentally critical areas.

1.1.3 WSDOT Proposed Mitigation Measures

Mitigation at the Magnuson Park Mitigation Area will include long-term protective measures such as deed restrictions, conservation easements, or native growth protection easements. Ownership of the site will be retained by the City of Seattle.

1.1.4 Project Construction Duration

A complete implementation schedule for this mitigation has not yet been developed. However, a number of additional studies and benchmarks are anticipated as part of the design process (see Table 6-15 of the *Draft Aquatic Mitigation Plan*, August 2011).

- Pre-Design: 2011 - 2012
- Technical Studies: 2013 – 2014
- Design and Permitting: 2014 – 2015
- Construction: 2016 – 2017
- Monitoring and Maintenance: 2017 - 2027
- Long-term management of the Magnuson Park site will be provided by Seattle Parks.

A more comprehensive implementation schedule will be developed as the project design advances.

1.1.5 Public Comments

The comment period for this project ended on Sept. 16. A summary of public comments is provided above for the Portage Bay project (3012585). While the vast majority of comments concerned the overall bridge replacement project and impacts at the project site, a few comments specifically addressed the Magnuson Park project and were focused on concerns about impacts to neighbors from construction activities. As described in the summary of public comments for 3012585, a number of public comments expressed concern about the applicability of the Magnuson Park site for habitat mitigation for impacts in the Portage Bay area.

1.2 ENVIRONMENTALLY CRITICAL AREAS

The Environmentally Critical Areas Ordinance was adopted to promote safe, stable, and compatible development that avoids adverse environmental impacts and potential harm on the parcel and to adjacent properties.

The proposed activities include grading and fill within the Shoreline Environment specifically to enhance aquatic habitat in an environmentally critical area. The activities are allowed within the Shoreline regulations, as analyzed below, and therefore are consistent with allowed development in the ECA shoreline habitat and buffer per SMC 25.09.200.

1.3 ANALYSIS – SHORELINE SUBSTANTIAL DEVELOPMENT PERMIT

The proposal is located within the following Shoreline Environment as designated by the Seattle Shoreline Master Program (SSMP): Conservancy Management (CM). The Shoreline Master Program, Chapter 23.60 of the Seattle Municipal Code, regulates use and development in the City's shoreline districts to implement the policy and provisions of the Shoreline Management Act of 1971 and the Shoreline Goals and Policies.

The SSMP requires that a shoreline permit be obtained prior to the undertaking of any substantial development within a shoreline environment. SMC Section 23.60.030 includes criteria for evaluating a shoreline permit. A substantial development permit shall be issued only when the development proposed is consistent with:

A. The policies and procedures of Chapter 90.58 RCW;
B. The regulations of this Chapter; and
C. The provisions of Chapter 173-27 WAC.

Conditions may be attached to the approval of a permit as necessary to assure consistency of the proposed development with the Seattle Shoreline Master Program and the Shoreline Management Act.

1.3.1 The Policies and Procedures of Chapter 90.58 RCW

The State of Washington Shoreline policies (RCW Chapter 90.58) provide for the control of pollution and prevention of damage to the natural environment, and for the protection of the resources and ecology of the shoreline over the long term. It is the policy of the state to provide for the management of the shorelines of the state by planning for and fostering all reasonable and

appropriate uses. The Shoreline Management Act of 1971 provides definitions and concepts, and gives primary responsibility for initiating and administering the regulatory program of the Act to local governments. The Department of Ecology is to primarily act in a supportive and review capacity, with primary emphasis on insuring compliance with the policy and provisions of the Act. As a result of this Act, the City of Seattle adopted a local shoreline master program, codified in the Seattle Municipal Code at Chapter 23.60 that also incorporates the provisions of Chapter 173.27 WAC. Development on the shorelines of the State is not to be undertaken unless it is consistent with the policies and provisions of the Act, and with the local master program. The Act sets out procedures, such as public notice and appeal requirements, and penalties for violating its provisions.

The City of Seattle Shoreline policies incorporate these goals by reference and include area objectives pursuant to these goals. These policies contemplate protecting against adverse effects to the public health, the land and its vegetation and wildlife, and the waters of the state and their aquatic life, while protecting public rights of navigation and corollary incidental rights. Permitted uses in the shorelines shall be designed and conducted in a manner to minimize, insofar as practical, any resultant damage to the ecology and environment of the shoreline area and any interference with the public's use of the water.

As discussed below, the City's Shoreline policies encourage public access and discourage disrupting the shoreline environment. This proposal is consistent with the policies and procedures of the RCW Chapter 90.58.

1.3.2 The Regulations of Chapter 23.60

The regulations of SSMP Section 23.60.064 require that the proposed use: 1) conform to all applicable development standards of both the shoreline environment and underlying zoning; 2) be permitted in the shoreline environment and the underlying zoning district 3) satisfy the criteria of shoreline variance, conditional use, and/or special use permits as may be required and 4) SMC 23.60.014 C. for standards applicable to environmentally critical areas as provided in Seattle Municipal Code Chapter 25.09, Regulations for Environmentally Critical Areas, shall apply in the Shoreline District. If there are any conflicts between the Seattle Shoreline Master Program and Seattle Municipal Code Chapter 25.09, the most restrictive requirements shall apply.

The underlying zoning of the Magnuson Park Mitigation Site is Single Family 7200 (SF 7200). The underlying zoning allows for primarily single family residential uses.

1.3.2.1 SMP 23.60.004 - Shoreline Policies

Policies governing approval of development in shoreline districts are set out in the Land Use Element of the Seattle Comprehensive Plan.

1.3.2.1.1 Environmentally Critical Areas (LUG 36)

Seattle's Comprehensive Plan Environmentally Critical Areas encourage protection of the ecological functions and values of wetlands, and fish and wildlife habitat conservation areas (LUG 36).

The Magnuson Park mitigation project has been specifically located and designed to not only avoid and minimize adverse impacts, but to enhance natural habitats. The project avoids, minimizes, and mitigates for impacts by:

- Limiting construction-related disturbance to the minimum necessary to build the habitat improvements.
- Performing in-water work outside of sensitive fish use periods, and within approved in-water work windows.
- Restore natural grades, elevations, and vegetation (see Sections 6.2 through 6.5 of the Final Aquatic Mitigation Plan)
- Install riparian plantings
- Install substrate enhancements with gravel suitable for sockeye salmon spawning and Chinook salmon rearing.
- Per Federal, State, and local requirements, compensatory mitigation sites must be protected in perpetuity through a deed restriction, long-term sensitive area protection easement, or similar land use instrument. In addition, mitigation sites that have been restored must be monitored for a period of ten years to ensure the restoration has been completed successfully. Following that ten year period, the Army Corps of Engineers requires long-term management plans to make certain that the mitigation site is maintained and the character preserved.

1.3.2.1.2 Shoreline Goals LUG 43, LUG 48, and LUG 49 – Protection of Shoreline and Aquatic Environment

The Shoreline Goals and Policies are located in Section C-4 of the Land Use Element. There are three goals specific to the protection of the shoreline and aquatic environment: LUG 43, "Protect those areas of shoreline that are geologically dangerous or fragile, or biologically fragile."; LUG 48, "Preserve, protect and restore areas such as those necessary for the support of wild and aquatic life or those identified as having geological or biological significance.": and LUG 49, "Insure that all future uses will preserve and protect environmental systems, including wild and aquatic life."

The basic elements of the mitigation design in the Shoreline District include:

- At Project 1 site, two cove beaches will be created that will enhance fish and nearshore habitat in this area. This action will include bank re-sloping, gravel augmentation, LWD installation and revegetation.
- At Project 2 site, a bulkhead and associated rubble will be removed to improve fish and nearshore habitat. If the existing root structure is insufficient to prevent shoreline erosion, re-grading and gravel placement will be considered. Revegetation with native vegetation will also occur. A surface water channel will also be constructed to convey flows from WSDOT's wetland mitigation site and Seattle Parks' planned habitat improvements upstream. The channel will be accessible to fish for a distance of about 100 feet but will be prevented from movement further upstream by installation of a weir or similar impediment.

The proposed activities are consistent with these three Shoreline Goals.

1.3.2.1.3 Shoreline Goals LUG 44 – Public Access and LUG 45 View Preservation

Goal LUG 44 provides for "the optimum amount of public access – both physical and visual – to the shorelines of Seattle. LUG 45 describes that views of the shoreline and water from upland areas shall be preserved and enhanced where appropriate.

Views and visual access by the public will be preserved and enhanced by the removal of non-native species and replanting with native species. By locating the wetlands farther from Beach Drive and major trails, a wider and more densely-planted buffer with more vertical structure will be provided. This is intended to increase wildlife use in the wetland and buffer and increase opportunities for wildlife viewing by the public. WSDOT and Seattle Parks intend to maintain a trail system at the site to minimize disturbance to the mitigation area while allowing for public access.

1.3.2.2 Effective Date of Shoreline Permit

Construction of the mitigation at the Magnuson Park Mitigation Site is expected to begin in 2016 and to be completed in 2017. The time limits for the permit, per SMC 23.60.074A and B will be determined prior to issuance and be based on the based on the time needed to complete the construction of the project. Site construction would be completed by WSDOT or its contractor.

1.3.2.3 Shoreline Uses

The proposed shoreline development is located in the Conservancy Management (CM) Shoreline Environment. The proposed use as enhanced shoreline habitat will require dredging and landfill in the Shoreline Environment. Dredging and landfill are allowed as a special use (SU) in the CM Environment; SMC 23.60.424 I. Dredging, when the dredging is necessary for a water-dependent or water-related use; and SMC 23.60.424.J. The following types of landfill: 2. Landfill for the creation of wildlife or fisheries habitat as mitigation or enhancement. Approval is subject to the special use criteria of 23.60.032.

A summary of the activities proposed in each shoreline environment is provided on the following table:

Table 2-1
Summary of Activity Proposed in Shoreline Environment

Proposed Activity	CM Environment
Dredging/Landfill	SU

An analysis of whether the proposed dredging and landfill is allowed as a "special use" in provided in the following section 1.3.2.3.

1.3.2.3.1 Analysis – Shoreline Special Use

As described above, per SMC 23.60.424 Special uses in the CM Environment, dredging and landfill is allowed subject to the special use criteria of Section 23.60.032 under these sections:

- Dredging necessary for water-dependent uses, installation of utility lines or creation of wildlife or fisheries habitat as mitigation or enhancement; and

- The following types of landfill: Landfill for the creation of wildlife or fisheries habitat as mitigation or enhancement, and

SMC 23.60.032 provides the following:

> *Uses which are identified as requiring special use approval in a particular environment may be approved, approved with conditions or denied by the Director. The Director may approve or conditionally approve a special use only if the applicant can demonstrate all of the following:*
>
> *A. That the proposed use will be consistent with the policies of RCW 90.58.020 and the Shoreline Policies;*

See Section 1.3.1. The Director has determined that the proposed uses are consistent with the policies of RCW 90.58.020.

See Section 1.3.2.1 for an analysis of compliance with Shoreline Policies. Mitigation activities at the two sites in Magnuson Park will include: at Project 1 site, the bank will be re-sloped, gravel added, LWD installed and revegetation performed to create two cove beaches to enhance fish and nearshore habitat; and at Project 2 site, a bulkhead and associated rubble will be removed to improve fish and nearshore habitat. If the existing root structure is insufficient to prevent shoreline erosion, re-grading and gravel placement will be considered. Revegetation with native vegetation will also occur. A surface water channel will also be constructed to convey flows from WSDOT's wetland mitigation site and Seattle Parks' planned habitat improvements upstream.

> *B. That the proposed use will not interfere with the normal public use of public shorelines;*

The proposed dredging and landfill are needed to create and enhance fish and nearshore shoreline habitat. The uses will not interfere with the normal public use of public shorelines. Views and visual access by the public will be preserved and enhanced by the replacement of non-native vegetation with native vegetation, and increased opportunities for wildlife viewing. Trail systems are effective at managing users and keeping the majority of the users from disturbing restoration sites. WSDOT and Seattle Parks intend to maintain a trail system at the site to minimize disturbance to the mitigation area while allowing for public access.

> *C. That the proposed use of the site and design of the project will be compatible with other permitted uses within the area;*

The proposed activities will enhance the existing shoreline habitats. The surrounding area includes park land and natural areas, and these uses would be compatible.

> *D. That the proposed use will cause no unreasonably adverse effects to the shoreline environment in which it is to be located; and*

See analysis above in Subsection 1.3.2.1.2 - Shoreline Goals LUG 43, LUG 48, and LUG 49 – Protection of Shoreline and Aquatic Environment. The proposed activities will provide beneficial effects to the shoreline environment.

E. That the public interest suffers no substantial detrimental effect.

The public interest will be served by this proposed shoreline improvement project. The project will enhance the natural drainage system by grading the sites, and constructing a new surface water channel to convey flows from WSDOT's wetland mitigation site and Seattle Parks' planned habitat improvements upstream. The projects will return the project to a more natural state by removal the bulkhead and associated rubble at Project site 2, reduce surface runoff, provide natural water quality treatment processes, and protect shore properties. In addition, negative effects on surface water bodies during construction would be minimized by implementing water quality pollution control measures outlined in the required TESC, SPCC, and Concrete Containment and Disposal plans, including compliance with permit conditions.

1.3.2.3.2 Decision – Shoreline Special Use

The Director has determined that the proposed dredging and landfill meets the Special Use Criteria of SMC 23.60.032 and **is approved**

1.3.2.4 Shoreline Development Standards

The proposed shoreline development is located in the Conservancy Management (CM) Shoreline Environment. Pursuant to the Seattle Shoreline Master Plan, the proposed action is subject to the:

1. general development standards (SMC 23.60.152);
2. development standards applicable to specific uses (SMC 23.60.179 – 23.60.210);
3. development standards for uses in the CM Environment (SMC 23.60.450);

1.3.2.4.1 SMC 23.60.152 - General Development Standards for all Shoreline Environments

General standards for all uses and development in all shoreline environments are established in SMC Section 23.60.152. Generally, these standards require that all shoreline activity be designed, constructed, and operated in an environmentally sound manner consistent with the Shoreline Master Program and with best management practices for the specific use or activity, in order to have minimal impact on the shoreline environment. The following general development standards are relevant to the proposed project:

A. The location, design, construction and management of all shoreline developments and uses shall protect the quality and quantity of surface and ground water on and adjacent to the lot and shall adhere to the guidelines, policies, standards and regulations of applicable water quality management programs and regulatory agencies. Best management practices such as paving and berming of drum storage areas, fugitive dust controls and other good housekeeping measures to prevent contamination of land or water shall be required.

Possible negative impacts to surface and ground water quality could result from the dredging and landfill activities due to earthwork, stockpiling, erosion of disturbed soils or soil stockpiles by stormwater runoff, fugitive dust from earth moving, equipment leaks or spills from construction equipment, material transport, and storm drainage. If not properly controlled through use of Best Management Practices, these project actions could affect other water quality parameters, such as the amount of available oxygen in the water.

The proposed shoreline creation and enhancement activities would require the development and implementation of temporary erosion and sediment control (TESC) and spill prevention, control, and countermeasures (SPCC) plans (WSDOT 2008a). A TESC plan would detail the risk of erosion in different parts of the Magnuson Park Project sites and would specify best management practices (BMPs) to be installed prior to construction activities and periodic maintenance and inspection procedures during construction. It would include environmental standards based on state regulations, such as turbidity and total suspended solids (TSS) levels in stormwater discharged from construction staging and work areas. A SPCC plan would also be prepared to prevent, control, and identify countermeasures for potential spills of hazardous materials during construction, as required by WSDOT Standard Specification 1-07.15(1) (WSDOT 2008d).

The project, including work at the off-site mitigation area in Magnuson Park, will employ numerous Best Management Practices and mitigation measures to protect groundwater and surface water quality, which are briefly discussed below, and discussed in substantial detail in the FEIS in Chapter 6 Construction Effects of the FEIS, and in the discipline reports and plans attached as addenda to the FEIS including the Geology and Soils Discipline Report; Water Resources Discipline Report; Hazardous Materials Discipline Report, and the Conceptual Aquatic Mitigation Plan.

1. Construction Stormwater Pollution Prevention Plan. This plan will describe overall BMPs, including location, size, maintenance requirements, and monitoring; specify methods for handling dewatering water, including storage, treatment, and discharge or disposal; discuss fugitive dust control, including surface protection and wetting techniques; outline flow control, including methods for routing off-site stormwater around the construction area and for controlling on-site stormwater discharges; address detention requirements and protocols to meet requirements and maintain existing conveyance system capacity; describe temporary water quality treatment for on-site stormwater runoff and/or dewatering water, including methods, location, and treatment goals; specify storm drain protection, maintenance, and monitoring; provide a list of Certified Erosion and Sediment Control Leads who would monitor and manage implementation and maintenance of BMPs; and outline water quality monitoring requirements, including location, frequency, and reporting. This plan would serve as the overall stormwater mitigation plan and would include each of the plans discussed below as appendices:

2. Temporary Erosion and Sediment Control Plan: This plan would outline the design and construction specifications for BMPs to be used to identify, reduce, eliminate, or prevent sediment and erosion problems.

3. Spill Prevention, Control, and Countermeasures Plan: This plan would outline requirements for spill prevention, inspection protocols, equipment, material containment measures, and spill response procedures.

4. Fugitive Dust Plan. This plan would outline measures to prevent generation of fugitive dust from exposed soil, construction traffic, and material stockpiles.

5. Contaminated Soil Management Plan (CSMP). This plan will be developed by the contractor to address details, including all BMPs, for handling and disposal of known and unanticipated contaminated soil material and spoils.

Completed Construction Stormwater Pollution Prevention Plan and appendices as well as all portions of CSMPs relevant to activities in the Shoreline District shall be provided to DPD prior to issuance of any building permit for this project in the Shoreline District. The contractor will also prepare and implement an Environmental Compliance Plan (ECP) that identifies roles and responsibilities of key personnel, procedures for environmental compliance, procedures to identify and correct non-compliance events, and procedures for emergency response. The ECP will be provided to DPD prior to issuance of any building permits in this project area, as well as stored in a format easily accessible by WSDOT and the regulatory agencies. A copy shall be maintained at the contractor's construction office and on-site at the project.

B. Solid and liquid wastes and untreated effluents shall not enter any bodies of water or be discharged onto the land.

In addition to the above BMPs, WSDOT would implement the following procedures as appropriate for construction or demolition to prevent the discharge of solid and liquid wastes into the water or on land.

- The contractor will be required to develop and comply with a Spill Prevention, Control, and Countermeasures (SPCC) plan and a TESC plan. These plans will provide specific BMPs to keep solid and liquid wastes from entering bodies of water or being discharged onto the land.
- A Spill Prevention Control and Countermeasure Plan (SPCC) will be prepared prior to construction. The plan will outline measures and Best Management Practices to prevent any discharge of petroleum based products into surface waters and or adjoining shorelines during construction.
- Typical Best Management Practices to be implemented during construction include: secondary containment, double hull fuel storage tanks, spill kits, vegetable based petroleum products, absorbent boom material, defined fueling practices and procedures, material storage lockers and equipment inspection and maintenance.

Additional information on in-water construction activities, effects from these activities, and associated BMPs is provided in Section 6.11, Ecosystems of the FEIS.

D. The release of oil, chemicals or other hazardous materials onto or into the water shall be prohibited. Equipment for the transportation, storage, handling or application of such materials shall be maintained in a safe and leakproof condition.

If there is evidence of leakage, the further use of such equipment shall be suspended until the deficiency has been satisfactorily corrected.

No petroleum products, fresh cement, lime or concrete, chemicals or other toxic or deleterious materials that may be used during construction will be allowed to enter surface waters. Equipment in use at the staging and construction areas will be maintained in a safe and leak-proof condition and will be inspected regularly. Appropriate repairs will be made to prevent the release of such materials. Relevant BMPs and mitigation measures are discussed in substantial detail in Chapter 6 Construction Effects of the FEIS, and in the discipline reports and plans attached as addendums to the FEIS including the Geology and Soils Discipline Report; Water Resources Discipline Report; and Hazardous Materials Discipline Report. See discussion above regarding implementation of Construction Stormwater Pollution Prevention Plan and, in particular, Spill Prevention, Control, and Countermeasures Plan.

E. All shoreline developments and uses shall minimize any increases in surface runoff, and control, treat and release surface water runoff so that receiving water quality and shore properties and features are not adversely affected. Control measures may include, but are not limited to, dikes, catch basins or settling ponds, interceptor drains and planted buffers.

Stormwater management will be provided for the project and at the construction staging areas in accordance with applicable requirements. The contractor is responsible for the preparation and implementation of a Spill Prevention, Control and Countermeasure (SPCC) plan to be used for the duration of the proposed project. Relevant BMPs, including this SPCC plan, and mitigation measures are discussed in substantial detail in Chapter 6 Construction Effects of the FEIS, and in the discipline reports and plans attached as addendums to the FEIS including the Geology and Soils Discipline Report; Water Resources Discipline Report; and Hazardous Materials Discipline Report. See discussion above regarding implementation of Construction Stormwater Pollution Prevention Plan.

F. All shoreline developments and uses shall utilize permeable surfacing where practicable to minimize surface water accumulation and runoff.

The proposed activities at Magnuson Park are to enhance nearshore habitat. The surfacing will be permeable.

G. All shoreline developments and uses shall control erosion during project construction and operation.

The contractor for the project is responsible for the preparation and implementation of a Temporary Erosion and Sediment Control Plan (TESCP). The TESC plan would detail the risk of erosion in different parts of the study area and would specify best management practices (BMPs) to be installed prior to construction activities and periodic maintenance and inspection procedures during construction. It would include environmental standards based on state regulations, such as turbidity and total suspended solids (TSS) levels in stormwater discharged from construction staging and work areas. Relevant BMPs and mitigation measures are discussed in substantial detail in Chapter 6 Construction Effects of the FEIS, and in the

discipline reports and plans attached as addendums to the FEIS including the Geology and Soils Discipline Report; Water Resources Discipline Report; and Hazardous Materials Discipline Report. See discussion above regarding implementation of Construction Stormwater Pollution Prevention Plan.

> *H. All shoreline developments and uses shall be located, designed, constructed and managed to avoid disturbance, minimize adverse impacts and protect fish and wildlife habitat conservation areas including, but not limited to, spawning, nesting, rearing and habitat areas, commercial and recreational shellfish areas, kelp and eel grass beds, and migratory routes. Where avoidance of adverse impacts is not practicable, project mitigation measures relating the type, quantity and extent of mitigation to the protection of species and habitat functions may be approved by the Director in consultation with state resource management agencies and federally recognized tribes.*

See Chapter 6 of the FEIS. All in-water construction activities would occur during project-specific work windows approved by the regulatory agencies. WSDOT has coordinated with the regulatory agencies and the Muckleshoot Indian Tribe to establish site- and project-specific in-water work windows to minimize the potential for project activities to affect juvenile or adult salmonids.

Standard over-water and in-water construction and demolition BMPs would be implemented in accordance with environmental regulatory permit requirements and WSDOT specifications. A temporary erosion and sediment control plan, a spill prevention, control, and countermeasures plan, and a stormwater pollution prevention plan would be developed and implemented.

The mitigation project has been specifically located and designed to not only avoid and minimize adverse impacts, but to enhance natural habitats. The project avoids, minimizes, and mitigates for impacts by:

- Limiting construction-related disturbance to the minimum necessary to build the habitat improvements.
- Performing in-water work outside of sensitive fish use periods, and within approved in-water work windows.
- Restoring natural grades, elevations, and vegetation (see Sections 6.2 through 6.5 of the Final Aquatic Mitigation Plan)
- Installing riparian plantings
- Installing substrate enhancements with gravel suitable for sockeye salmon spawning and Chinook salmon rearing.
- Per Federal, State, and local requirements, compensatory mitigation sites must be protected in perpetuity through a deed restriction, long-term sensitive area protection easement, or similar land use instrument. In addition, mitigation sites that have been restored must be monitored for a period of ten years to ensure the restoration has been completed successfully. Following that ten year period, the Army Corps of Engineers requires long-term management plans to make certain that the mitigation site is maintained and the character preserved.

The Conceptual Aquatic Mitigation Plan (Attachment 9 to the FEIS) describes mitigation for aquatic resources effects.

> *I. All shoreline developments and uses shall be located, designed, constructed and managed to minimize interference with or adverse impacts to beneficial natural shoreline processes such as water circulation, littoral drift, sand movement, erosion and accretion.*

The proposed shoreline habitat mitigation activities within the Shoreline District will not require permanent development that would negatively impact natural shoreline processes such as water circulation, littoral drift, sand movement, erosion and accretion. See discussion above regarding implementation of Construction Stormwater Pollution Prevention Plan. The mitigation project has been specifically selected and designed to improve beneficial natural shoreline processes. Water circulation is expected to remain unaffected and sediment dynamics are anticipated to be improved. See the response to SMC 23.60.152(H), above, for details about the design, construction, and management of the project.

During construction, the implementation of erosion and sediment control measures and other best management practices would minimize effects to water quality and the shoreline environment. To further reduce erosion, the project would minimize vegetation and soil disturbance to the extent possible.

For additional mitigation measures and best management practices, see pages 35 to 36, 78 to 79, and 105 of the Ecosystems Discipline Report Addendum, included in Attachment 7 of the Final EIS.

> *J. All shoreline developments and uses shall be located, designed, constructed and managed in a manner that minimizes adverse impacts to surrounding land and water uses and is compatible with the affected area.*

The proposed activities within the Magnuson Park Mitigation Site have been identified to be located, designed, construction and managed in a manner that will enhance surrounding natural areas and will be compatible with the residential and university uses of the larger neighborhood area.

To maintain consistency with the Shoreline Master Program, the project has developed best management practices and designed site-specific mitigation to protect and improve natural habitats within shoreline areas and ensure compliance with the City of Seattle's Environmentally Critical Areas Ordinance.

> *K. Land clearing, grading, filling and alteration of natural drainage features and landforms shall be limited to the minimum necessary for development. Surfaces cleared of vegetation and not to be developed shall be replanted. Surface drainage systems or substantial earth modifications shall be professionally designed to prevent maintenance problems or adverse impacts on shoreline features.*

The proposed land clearing, grading, and filling are discussed in the Draft Aquatic Mitigation Plan. Surfaces that are cleared of vegetation will be replanted. Surface drainage systems or

substantial earth modifications will be professionally designed to prevent maintenance problems or adverse impacts on shoreline features. Specific construction activities will include controlling non-native species on the site. The project has been designed to minimize impacts to natural drainage features and landforms, to add native vegetation, and prevent maintenance problems or adverse impacts on shoreline features. The project will restore natural grades, elevations, and vegetation.

WSDOT has committed to the implementation of a variety of upland best management practices to reduce construction effects; including practices such as, ensuring that a Certified Erosion and Sediment Control Lead is consulted and onsite during construction activities, clearly defining construction limits with stakes and high visibility fence before beginning ground disturbing activities, minimizing vegetation and soil disturbance to the extent possible, and avoiding or reducing effects on critical areas during project construction, including shoreline buffers and designated sensitive areas. For additional avoidance and minimization measures, see pages 35 to 36, 78 to 79, and 105 of the Ecosystems Discipline Report Addendum, included in Attachment 7 of the Final EIS.

L. All shoreline development shall be located, constructed and operated so as not to be a hazard to public health and safety.

The proposed shoreline habitat creation and enhancement activities within the Shoreline District will not result in hazards to public health and safety. To ensure health and safety during construction of the project, a Worker and Public Health and Safety Plan would be implemented. In addition, a contaminant management plan would direct how contaminated soils and groundwater, if encountered, would be managed and disposed of during construction (Hazardous Materials Discipline Report Addendum, included in Attachment 7 of the Final EIS). No other potential hazards to public health or safety have been identified.

M. All development activities shall be located and designed to minimize or prevent the need for shoreline defense and stabilization measures and flood protection works such as bulkheads, other bank stabilization, landfills, levees, dikes, groins, jetties or substantial site regrades.

The project will restore natural shoreline grades, elevations, and vegetation; therefore, shoreline defense and stabilization measures such as those listed are not required.

N. All debris, overburden and other waste materials from construction shall be disposed of in such a way as to prevent their entry by erosion from drainage, high water or other means into any water body.

Potential impacts of construction-related pollutants and/or erosion are summarized above and discussed in more detail in Chapter 6 of the FEIS. The contractor will provide for the disposal of all debris and other waste material associated with the proposed activities within the Magnuson Park project sites in a manner that prevents their entry into any water body. The project complies by requiring specific protective BMPs. The contractor will be required to develop and comply with a SPCC plan and a TESC plan. These plans will provide specific BMPs to ensure that waste materials are kept from entering any waterbody. The contractor will also be required to dispose of any applicable waste materials at a facility approved for disposal purposes pursuant

to Division 2 (Earthwork) of the WSDOT Standard Specification for Road, Bridge, and Municipal Construction.

Relevant BMPs and mitigation measures are discussed in substantial detail in Chapter 6 Construction Effects of the FEIS, and in the discipline reports and plans attached as addendums to the FEIS including the Geology and Soils Discipline Report; Water Resources Discipline Report; and Hazardous Materials Discipline Report. See discussion above regarding implementation of Construction Stormwater Pollution Prevention Plan.

1.3.2.4.2 SMC 23.60.179 – 23.60.210 - Development Standards Applicable to Specific Uses

Development standards applicable to specific uses in all shoreline environments are established in SMC Sections 23.60.179 through 23.60.210. The following development standard is relevant to the proposed project:

- SMC 23.60.182 Dredging Standards

The project proposes, as a restoration objective, to dredge the existing nearshore of Lake Washington to achieve a shallower slope appropriate to juvenile Chinook salmon rearing. Sub-sections C, D, E, F, and G are not applicable to the proposed dredging. Compliance with applicable sub-sections is as follows:

> A – Dredging will be done using appropriate BMPs to minimize potential effects from turbidity and potential contaminants. The proposed dredging has been designed to yield an improvement in food web support, benthic productivity, and general aquatic ecology through restoration of sediment dynamics.
> B – Dredging will adhere to in-water work timing restrictions as agreed upon by state and federal agencies.

- SMC 23.60.184 Standards for landfill and creation of dry land

Shoreline fills or cuts shall be designed and located so that no significant damage to ecological values or natural resources shall occur and no alteration of local currents or littoral drift creating a hazard to adjacent life, property or natural resources shall occur. The proposed activities within the Shoreline District will not require permanent development that would negatively impact natural shoreline processes such as water circulation, littoral drift, sand movement, erosion and accretion. Relevant BMPs and mitigation measures are discussed in substantial detail in the FEIS and, in particular Chapter 5 Operation Effects, Chapter 6 Construction Effects, and the Ecosystems Discipline Report included as an Addendum to the FEIS. See discussion above regarding implementation of Construction Stormwater Pollution Prevention Plan.

1.3.2.4.3 Development Standards Applicable to CM Environment

- **SMC 23.60.450 Development Standards for the CM Environment.**

  All developments in the Conservancy Management Environment shall meet the requirements of this Part 2 as well as the development standards applicable to all environments contained in Subchapter III, General Provisions.

See analysis below for each applicable development standard.

- **SMC 23.60.452 Critical Habitat Protection in the CM Environment.**

  All developments in the CM Environment shall be located and designed to minimize disturbance of any critical habitat area. "Critical habitat areas" include salt or fresh water marshes, swamps, bogs, eel grass areas, kelp beds, streams, fish spawning areas, and other habitats.

The proposed mitigation activities are intended to both protect and to enhance the critical habitat in Magnuson Park. The project does not propose any development in saltwater (i.e. eel grass or kelp bed areas) or in marshes, swamps, bogs, or streams. The project does propose work to enhance shoreline fish habitats and riparian zones. The mitigation project has been specifically located and designed to not only avoid and minimize adverse impacts to natural areas of biological or geological significance, but to enhance natural areas. The project avoids, minimizes, and mitigates for impacts by:

- Limiting construction-related disturbance to the minimum necessary to build the habitat improvements.
- Performing in-water work outside of sensitive fish use periods, and within approved in-water work windows.
- Restoring natural grades, elevations, and vegetation (see Sections 6.2 through 6.5 of the Final Aquatic Mitigation Plan)
- Installing riparian plantings
- Installing substrate enhancements with gravel suitable for Chinook salmon rearing.

Per Federal, State, and local requirements, compensatory mitigation sites must be protected in perpetuity through a deed restriction, long-term sensitive area protection easement, or similar land use instrument. In addition, the mitigation site will be monitored for a period of ten years to ensure the restoration has been completed successfully. Long-term management plans will be implemented following the ten year period to ensure that the mitigation site is maintained and the character preserved.

- SMC 23.60.454 View Corridors in the CM Environment

The proposed mitigation activities do not include adding any structure that would block or infringe on views. The project doesn't propose any structures or elements that would obstruct views, but instead proposes enhanced natural landscaping elements that will improve viewing aesthetics. Landscaping will not affect more than 35% of the width of the lot. As such, the

project meets the view corridor requirements for the CM (SMC 23.60.458) shoreline environment.

- SMC 23.60.460 Regulated public access in the CM Environment

On public property, public access shall be provided and maintained on all publicly owned and publicly controlled waterfront whether leased to private lessees or not, except when the property is submerged land which does not abut dry land.

Magnuson Park is owned by the City of Seattle and managed as a public park. The proposed dredging and landfill are needed to create and enhance the shoreline habitat. The uses will not interfere with the normal public use of public shorelines. Views and visual access by the public will be preserved and enhanced by the replacement of non-native vegetation with native vegetation, and increased opportunities for wildlife viewing. Trail systems are effective at managing users and keeping the majority of the users from disturbing restoration sites. WSDOT and Seattle Parks intend to maintain a trail system at the site to minimize disturbance to the mitigation area while allowing for public access.

The project does not propose regulated public access, nor does it affect existing regulated public access. Public access is already provided at Magnuson Park by a bike and pedestrian path adjacent to the park's entire shoreline. Additional public access at the park includes a swimming area, docks for fishing, picnic tables and areas, and many accessible grass and beach areas.

1.3.3 The Provisions of Chapter 173-27 WAC

Chapter 173-27 WAC sets forth permit requirements for development in shoreline environments, and gives the authority for administering the permit system to local governments. The State acts in a review capacity. The Seattle Municipal Code Section 23.60 (Shoreline Development) incorporates the policies of the WAC by reference. These policies have been addressed in the foregoing analysis and have fulfilled the intent of WAC 173-27.

1.3.4 Decision – Shoreline Substantial Development Permit

The proposed shoreline substantial development permit is **CONDITIONALLY GRANTED.** Shoreline Substantial Development conditions are listed in Section 1.5 below.

1.4 ANALYSIS – STATE ENVIRONMENTAL POLICY ACT

WSDOT's 2006 Draft Environmental Impact Statement (EIS) analyzed proposed corridor construction from the I-5 interchange in Seattle to just west of I-405 in Bellevue. The 2010 Supplemental Draft EIS evaluated the effects of a No Build Alternative and three 6-lane design options for the SR 520 corridor from I-5 to Medina. A Preferred Alternative, similar to Option A, was identified in April 2011 following consideration of comments on the SDEIS.

The June 2011 Final EIS and Final Section 4(f) and 6(f) Evaluations analyzed a No Build Alternative along with a Preferred Alternative and the three SDEIS design options for the I-5 to Medina corridor. The Preferred Alternative and the design options would replace vulnerable

structures, add continuous HOV lanes, and include landscaped lids over SR 520 to reconnect neighborhoods that are now separated by the highway.

DPD's SEPA review of the SR 520 Seattle-side projects is limited to application of substantive authority and mitigation, as found in Seattle's Environmental Policies and Procedures (SMC 25.05.660). This is because WSDOT, as lead agency, has already completed the threshold determination process, which resulted in a Determination of Significance, and publication of the subsequent Environmental Impact Statement (EIS).

The substantive authority role allows the City to consider mitigation for impacts that were identified in the EIS for the SR 520 Replacement projects using the 'policies, plans, rules, or regulations" designated in the city's SEPA ordinance (SMC 25.05).

The SEPA Overview Policy (SMC 25.05.665) establishes the relationship among codes, policies, and environmental review. Specific policies for specific elements of the environment, certain neighborhood plans, and other policies explicitly referenced may serve as the basis for exercising substantive SEPA authority. The Overview Policy states in part:

> "[W]here City regulations have been adopted to address an environmental impact; it shall be presumed that such regulations are adequate to achieve sufficient mitigation" (subject to some limitations).

Under certain limitations/circumstances (SMC 25.05.665 D 1-7) additional mitigation can be considered. The impacts identified in WSDOT's environmental documents and the City's SEPA policies are provided below.

1.4.1 Short-Term and Temporary Impacts

A number of temporary or construction-related impacts are expected from this project, which are discussed in detail in the Final EIS (Chapter 6) and relevant Appendices or Addendums.

Several adopted City codes and/or ordinances provide mitigation for some of the identified impacts. Specifically these are: Stormwater, Grading and Drainage Control Code (grading, site excavation and soil erosion); Street Use Ordinance (watering streets to suppress dust, removal of debris, and obstruction of the pedestrian right-of-way); the Building Code (construction measures in general); and the Noise Ordinance (construction noise). In addition federal and State regulations and permitting authority are effective to control short-term impacts on water quality. Compliance with these applicable codes and ordinances will reduce or eliminate most of the short-term impacts to the environment. Some of these impacts are further discussed below.

1.4.1.1 General Construction Impacts

1.4.1.1.1 Short Term or Temporary Impacts

Seattle's SEPA policy regarding construction impacts recognizes that the construction process creates temporary impacts on the site and the surrounding area. The proposal is identified as having significant adverse impacts and mitigation measures have been planned in order to address the usual and direct impacts of noise, vibration, truck traffic, and air quality to name a few. There are also specific environmental policies for most of these types of impacts that may occur in the short-term and/or the long-term. Those impacts and the related SEPA policy discussion are detailed in the following paragraphs.

The Community Construction Management Plan (CCMP) is the tool identified to address construction-related impacts and is described below as the proposed mitigation for these impacts.

Greenhouse Gas Impacts: Construction activities including construction worker commutes, truck trips, the operation of construction equipment and machinery, and the manufacture of the construction materials themselves result in increases in carbon dioxide and other greenhouse gas emissions that adversely impact air quality and contribute to climate change and global warming. The analyses described above in Chapter 6 of the Final EIS and in the Air Quality Discipline Report Addendum and Errata address project-related impacts due to greenhouse gas emissions. Mitigation measures are discussed in Chapter 6 of the Final EIS to reduce fuel usage. Because GHG emissions are related to fuel consumption, any steps taken to minimize fuel use would reduce GHG emissions as well, and mitigate for these impacts.

1.4.1.1.2 General Proposed Mitigation

As requested by the Department of Archaeological and Historic Preservation, and outlined in the Section 106 Programmatic Agreement, WSDOT and the construction contractor will develop a community construction management plan (CCMP) for each funded phase of project construction. The final CCMP will be developed and implemented prior to construction. The development of a CCMP is also identified as a commitment in the Memorandum of Understanding (MOU) between the WSDOT and the City of Seattle. The MOU was signed by the Mayor and City Council in October 2011.

A CCMP is a set of tools and commitments to help minimize the effects of construction on the public by providing timely and responsive information, as well as implementing standard specifications and best practices. A CCMP is in development for the floating bridge and landings portion of the corridor, which has received funding for construction. A CCMP will be developed with public input for each future construction phase in Seattle that receives funding, including natural resources mitigation sites. Key topics that will be addressed in the CCMP will include:

- Noise
- Vibration
- Air quality and fugitive dust
- Visual quality: aesthetics, glare, lighting
- Traffic and transportation (haul routes, traffic, detours, street parking, damage resulting

- from heavy trucks and hauling, access, including emergency service access
- Utilities and services
- Vegetation management and erosion control
- In-water work (construction barges, work bridges, pontoon moorage, pontoon towing

For each of the topics listed above, the CCMP will address the following questions:

1) What can the public expect?
2) What are the applicable commitments from the Section 106 Programmatic Agreement?
3) What regulations must WSDOT and the contractor comply with?
4) What else are WSDOT and the contractor doing to avoid, minimize, and mitigate for construction effects on local communities and historic properties?
    a. BMPs and WSDOT standard specifications.
    b. Additional agreements, such as environmental commitments made through other regulatory and permitting processes.
    c. Additional tools that will be used to avoid, minimize, and mitigate construction effects on local communities and historic properties.
5) Specific communication tools to address this concern: How can the public get more information or talk to someone about concerns?

The final work product will be a Community Construction Management Plan, and this document will be submitted to the City.

1.4.1.2 Air Quality

1.4.1.2.1 Short Term or Temporary Impacts

Construction impacts for the project are discussed in Chapter 6 of the Final EIS (2011) and Attachments, including the Air Quality Discipline Report Addendum and Errata. Air quality effects from creation and enhancement of wetland and upland areas would occur primarily as a result of emissions from heavy-duty construction equipment (such as bulldozers, backhoes, and cranes), diesel-fueled mobile sources (such as trucks, brooms, and sweepers), diesel- and gasoline-fueled generators, and on- and offsite project-related vehicles (such as service trucks and pickups). Dust emissions would also occur and would be associated with land clearing, ground excavation, and cut-and-fill operations.

1.4.1.2.2 Proposed Mitigation: Air Quality

Chapter 6 of the Final EIS included description and discussion of mitigation measures to address the potential impacts identified in these analyses, including implementation of WSDOT's Memorandum of Understanding with Puget Sound Clean Air Agency (PSCAA) to comply with PSCAA regulations that require dust control during construction and to prevent deposition of mud on paved streets. The CCMP will also provide mitigation for short term or temporary impacts to air quality. With these measures in place, no additional mitigation pursuant to Seattle's SEPA policy on Air Quality or Construction Impacts is warranted.

1.4.1.3 Surface Water Quality

1.4.1.3.1 Short Term or Temporary Impacts

Construction impacts for the project are discussed in Chapter 6 of the Final EIS (2011) and Attachments, including the Water Resources Discipline Report Addendum and Errata and the Hazardous Materials Discipline Report Addendum and Errata. Temporary construction-related effects on water quality and mitigation for these effects are addressed in more detail in each of the two Discipline Reports

1.4.1.3.2 Proposed Mitigation: Water Quality

Construction effects on surface water would be avoided, minimized, and mitigated, and the amount of required treatment would be minimized and mitigated by the development, implementation, and ongoing updating of certain management plans, listed and summarized in Chapter 6 of the Final EIS. Construction of the project would require the development and implementation of temporary erosion and sediment control (TESC) and spill prevention, control, and countermeasures (SPCC) plans (WSDOT 2008a). A TESC plan would detail the risk of erosion in different parts of the study area and would specify best management practices (BMPs) to be installed prior to construction activities and periodic maintenance and inspection procedures during construction. It would include environmental standards based on state regulations, such as turbidity and total suspended solids (TSS) levels in stormwater discharged from construction staging and work areas.

A SPCC plan would also be prepared to prevent, control, and identify countermeasures for potential spills of hazardous materials during construction, as required by WSDOT Standard Specification 1-07.15(1) (WSDOT 2008d). Additional information on the requirements of SPCC plans is provided in the 2009 Hazardous Materials Discipline Report (Attachment 7 to the Final EIS).

Seattle's SEPA Water Quality policy anticipates that local, state and federal regulations address potential impacts from construction site runoff. In addition, Seattle's Environmental Critical Areas Ordinance and Shoreline Master Program provide regulatory authority for mitigating water quality impacts on wetland and shoreline habitats. See discussion above in Shoreline analysis section regarding implementation of the Construction Stormwater Pollution Prevention Plan and the ECP. No additional mitigation for construction-related impacts to surface water quality pursuant to SEPA is warranted.

1.4.1.4 Drainage and Earth

1.4.1.4.1 Short Term or Temporary Impacts

The construction-related effects from this project on earth and groundwater are addressed in Chapter 6 of the Final EIS and in the Geology and Soils Discipline Report Addendum and Errata.

1.4.1.4.2 Proposed Mitigation: Drainage and Earth

The construction-related effects from this project on earth and groundwater and mitigation measures to address and minimize these effects are addressed in Chapter 6 of the Final EIS and in the Geology and Soils Discipline Report Addendum and Errata. Any additional information

required to verify conformance with applicable ordinances and codes (the Stormwater Code and Director's Rule 16-2009) will be required prior to issuance of any required grading or fill permits. See discussion above in Shoreline analysis section regarding implementation of the Construction Stormwater Pollution Prevention Plan and the ECP.

A TESC plan will be required to adequately and systematically identify and minimize project risk. The purpose of the TESC plan is to clearly establish when and where specific best management practices (BMPs) will be implemented to prevent erosion and the transport of sediment from a site during construction. The TESC plan sheets will show the BMP locations and other features such as topography and sensitive area locations for multiple project stages.

Potential BMPs are as follows:

- Maintaining vegetative growth and providing adequate surface water runoff systems
- Using quarry spalls and, possibly, truck washes at construction vehicle exits from the construction site
- Regularly sweeping and washing adjacent roadways
- Constructing silt fences downslope of all exposed soil
- Using quarry spall lined temporary ditches, with periodic straw bales or other sediment catchment dams
- Providing temporary covers over soil stockpiles and exposed soil
- Using temporary erosion-control blankets and mulching to minimize erosion prior to vegetation establishment
- Constructing temporary sedimentation ponds for removal of settleable solids prior to discharge
- Limiting the area exposed to runoff at any given time
- Frequently watering exposed surface soils to minimize visible dust

Where construction dewatering could result in settlement that might damage adjacent facilities, mitigation could include the following:

- Re-injecting the pumped groundwater between the dewatering wells and the affected facility
- Using construction methods that do not require dewatering

The CCMP will also provide mitigation for short term or temporary impacts to Drainage and Earth. With these measures in place, no additional mitigation pursuant to Seattle's SEPA policy on Drainage and Earth is warranted.

1.4.1.5 Traffic and Parking

1.4.1.5.1 Short Term or Temporary Impacts

The construction-related effects related to traffic and parking are addressed in Chapter 6 of the Final EIS and in the Final Transportation Discipline Report attached to the Final EIS. The analysis includes effects on local streets, the regional freeway system, truck transportation, transit, and bicycle and pedestrian travel. Impacts on local streets from construction activities within Magnuson Park are anticipated to be minimal.

1.4.1.5.2 Proposed Mitigation: Traffic and Parking

WSDOT will address construction-related traffic and parking impacts in the Community Construction Management Plan, in coordination with other stakeholders, to ensure that construction effects on local streets, property owners, and businesses are minimized. The plan will consider, as a minimum, the following measures:

- Details on required street and lane closures (duration and timing)
- Proposed detours and signing plans (for vehicles, pedestrians, freight, and bicycles)
- Compliance with Americans with Disabilities Act accessibility requirements.
- Measures to minimize effects on transit operations and access to/from transit facilities (in coordination with transit service providers)
- Traffic enforcement measures, including deployment of police officers
- Coordination with emergency service providers
- Measures to minimize traffic and parking effects from construction employees
- Measures to minimize effects of truck traffic for equipment and material delivery
- Measures to minimize disruption of access to businesses and properties
- Measures to minimize conflicts between construction activities and traffic during events

As conditioned, the proposal's construction- related impacts can be adequately mitigated, pursuant to the authority in SEPA's Traffic and Transportation and Construction Impacts policies.

1.4.1.6 Noise

1.4.1.6.1 Short Term or Temporary Impacts

Construction-related impacts related to noise are addressed in Chapter 6 of the Final EIS and in the Noise Discipline Report Addendum and Errata attached to the Final EIS. Noise would include the use of typical non-impact construction noise-producing equipment such as excavators, haul trucks, loaders, and tractor trailers.

The City of Seattle has developed a set of construction-specific allowable noise-level limits that would apply to construction within the Seattle city limits. Unlike the Washington Administrative Code, the Seattle Municipal Code does not exempt daytime construction activities from regulation. Table 6.7-2 in Chapter 6 of the Final EIS includes the maximum permissible sound levels depending on the district designations of the sound source and receiving properties (rural, residential, commercial, or industrial). Most project construction could be performed within the indicated noise limits shown in Tables 6.7-2 if the work was performed during normal daytime hours. No night construction activities for the wetland and upland creation and enhancement activities are anticipated.

1.4.1.6.2 Proposed Mitigation: Noise

The project will need to meet the requirements of the City of Seattle noise ordinance and the conditions of any variance that may be obtained. Several construction noise and vibration abatement methods—including operational methods, equipment choice, or acoustical treatments—could be implemented to limit the effects of construction. The methods used might vary in the project corridor, depending on the type of construction. The following list describes

some of the more common construction noise and vibration abatement methods that could be used.

- Operation of construction equipment could be limited wherever possible within 500 feet of any occupied dwelling unit during nighttime hours or on Sundays or legal holidays, when noise and vibration would have the most severe effect.
- Mufflers would be required on all engine-powered equipment, and all equipment would be required to comply with EPA equipment noise standards.

A complaint hotline could also be established to investigate noise complaints and compare them to the construction logs. A construction monitoring and compliance program could help to ensure that all equipment met state, local, and manufacturer's specifications for noise emissions. Equipment not meeting the standards could be removed from service until proper repairs were made, and the equipment re-tested for compliance. This procedure could be used for all haul trucks, loaders, excavators, and other equipment that would be used extensively at the construction sites and that would contribute to potential noise effects.

The following is a list of potential noise mitigation measures that could be included in the construction contract specifications:

- Minimize noise by regular inspection and replacement of defective mufflers and parts that do not meet the manufacturer's specifications.
- Install temporary or portable acoustic barriers around stationary construction noise sources and along the sides of the temporary bridge structures, where feasible and practical.
- Locate stationary construction equipment as far from nearby noise-sensitive properties as possible.
- Shut off idling equipment.
- Reschedule construction operations to avoid periods of noise annoyance identified in complaints.
- Notify nearby residents and institutions whenever extremely noisy work would be occurring.
- Restrict the use of back-up beepers during evening and nighttime hours.

Additional noise mitigation measures may be implemented as more details on the actual construction processes are developed and as part of any noise variance that may be required.

Any requests from WSDOT for construction noise variances for this project will generate specific mitigation requirements from the Seattle Department of Planning and Development that will be specified in any issued noise variance. As conditioned, the proposal's construction-related noise impacts can be adequately mitigated, pursuant to the authority in SEPA's Noise and Construction Impacts policies.

1.4.1.7 Plants and Animals

1.4.1.7.1 Short Term or Temporary Impacts

Section 6.11 of Chapter 6 of the Final EIS describes the construction impacts on ecosystems (including wetlands, fish, fish and aquatic habitat, wildlife, and federally and state listed species). Wildlife and habitat may be affected by temporary clearing and shading of vegetation. The Ecosystems Discipline Report Addendum and Errata (Attachment 7 to the Final EIS) provides a detailed technical discussion on potential effects.

The proposed SR 520 mitigation at the Magnuson Park Mitigation Site would be aligned with the larger overall ecological restoration vision and concept for the park documented in the park master plan. There are other similar areas in the park that may provide for additional mitigation or the mitigation area may shift to these areas as the design matures. One specific restoration element included in Project site 2 involves modifying the drainage pathway downstream of the restored wetlands to establish a direct surface water connection to Lake Washington in an open channel. The master plan identifies this restoration element as important for ecological connectivity. Further work and coordination with the City of Seattle is necessary to clarify the full extent of the mitigation site and assure that it is consistent with the park master plan.

The basic elements of the mitigation design include:

- At Project 1 site, two cove beaches will be created that will enhance fish and nearshore habitat in this area. This action will include bank re-sloping, gravel augmentation, LWD installation and revegetation.
- At Project 2 site, a bulkhead and associated rubble will be removed to improve fish and nearshore habitat. If the existing root structure is insufficient to prevent shoreline erosion, re-grading and gravel placement will be considered. Revegetation with native vegetation will also occur. A surface water channel will also be constructed to convey flows from WSDOT's wetland mitigation site and Seattle Parks' planned habitat improvements upstream. The channel will be accessible to fish for a distance of about 100 feet but will be prevented from movement further upstream by installation of a weir or similar impediment.

Other potential short-term construction effects could include spills of hazardous materials (e.g., oil and gasoline), chemical contaminants, or other pollutants. To reduce potential spills of petroleum and hydraulic fluids in sensitive areas, maintenance or fueling of construction equipment, vehicles, or vessels would not be allowed within 200 feet of the area waterways without the implementation of appropriate spill prevention and control measures.

1.4.1.7.2 Proposed Mitigation: Plants and Animals

A spill prevention, control, and countermeasures plan and a concrete containment and disposal plan will be developed before beginning construction (see discussion above in Shoreline Substantial Development Permit analysis).

All in-water construction activities would occur during project-specific work windows approved by the regulatory agencies. WSDOT has coordinated with the regulatory agencies and the

Muckleshoot Indian Tribe to establish site- and project-specific in-water work windows to minimize the potential for project activities to affect juvenile or adult salmonids.

Standard over-water and in-water construction and demolition BMPs would be implemented in accordance with environmental regulatory permit requirements and WSDOT specifications. Specific in-water construction time periods would also be established through the project permitting process to minimize potential effects of pile-driving and other in-water construction activities on salmonid species.

Appropriate BMPs and noise attenuation methods will be developed in coordination with the regulatory agencies, the Muckleshoot Indian Tribe, and environmental permitting processes, and implemented to minimize potential effects of pile-driving activities.

Other BMPs could include:

- Avoiding or minimizing direct lighting effects from entering Lake Washington from construction activities by adjusting the angle of the lights and/or using bulbs in a non-white light spectrum
- Operating construction equipment from work bridges and barges where possible to minimize ground disturbance when working in or near sensitive areas
- Restoring cleared areas to preconstruction grades and replanting the areas with appropriate native herbaceous and woody species after construction

Additional mitigation measures include restoration of the areas affected by construction activities areas as follows:

- Replanting temporarily affected wetlands and riparian habitat with native vegetation after construction

The Surface Water Discipline Report and Hazardous Materials Discipline Report also contain mitigation measures that will minimize and mitigate impacts to natural resources, primarily with respect to Best Management Practices that will be employed for protection of water quality and aquatic habitat during construction activities. See discussion above regarding implementation of Construction Stormwater Pollution Prevention Plan.

1.4.2 Long-Term Impacts

To mitigate for unavoidable, permanent shoreline habitat (aquatic) impacts, WSDOT used the conceptual model and assessment methodology. Unfortunately, these impacts cannot be mitigated for on-site because of project constraints. Based on these methods, the Portage Bay Bridge project would result in permanent impacts to 2.41 acres.

During the off-site selection process, WSDOT identified the Bear Creek restoration site (stream channel component) to provide sufficient mitigation area for permanent aquatic impacts for the Portage Bay Bridge project and mitigation at this site can offset the functions and values that would be affected by the project (Table 9). The Bear Creek channel restoration component would provide 2.50 acres (adjusted with fish function and mitigation type modifiers) of

mitigation credit to offset permanent shoreline habitat (aquatic) impacts associated with the Portage Bay Bridge project (Table 9, Appendix E). Detailed information regarding the Bear Creek restoration site is provided in Appendix C (Figure C-10) and Appendix D. For additional details of these sites, please refer to Section 6 of the Draft Aquatic Mitigation Plan (WSDOT 2011). Enhancement activities will add more native species, increasing species diversity at the site. Establishing new wetland area and enhancing existing wetlands by planting native species and removing invasive species will increase the structural complexity of the site, increasing the habitat niches present.

1.4.3 Conclusion – SEPA

As part of the project proposal WSDOT has included mitigation measures for identified impacts discussed in application materials and in this analysis. A summary of these mitigation measures is in the project file, including the Portage Bay Area Environmental Critical Area Technical Memorandum (ECAR, Nov. 2011), as well as in the shoreline and SEPA analysis in this decision.

DPD's analysis of the application is based on the proposal together with these mitigation measures and views this mitigation as appropriate pursuant to the City's SEPA policies. If the applicant proposes substantive revisions at a future date, additional SEPA review may be required.

1.4.4 Decision – SEPA

The proposal is **CONDITIONALLY GRANTED**

1.5 SHORELINE AND SEPA CONDITIONS

1. The project must be designed and built in substantial conformance to the site plan and project specifications submitted to the City of Seattle with the Application for Shoreline Substantial Development Permit. Additional mitigation measures for habitat impacts are described in this analysis and in the following conditions.

2. The time limits for the permit, per SMC 23.60.074A and B will be determined prior to issuance and be based on the time needed to complete the construction of the project, currently estimated by WSDOT to be 2.5 years.

Prior to Issuance of Master Use Permit

3. **Final Design**

WSDOT or its contractor shall provide revised plan sheets showing final design for all development approved for the Magnuson Park Mitigation Site (3012591). Any changes to current plan set sheets for the Magnuson Park Mitigation Site should be clearly identified on these revised plans. The plans should clearly demonstrate that mitigation credits proposed by this project for the Portage Bay project (3012585) have been met or exceeded by the final design plans. This information will also include final maintenance and monitoring plans for the mitigation projects. This submittal shall include all pertinent technical reports supporting development of the final plans.

The grading plans for this project shall be submitted to DPD and include all substantive elements (not necessarily all submittal requirements) needed for a grading permit under SMC 22.170.070 of the Seattle Grading Code as verified by DPD. DPD may opt to assign mutually agreed upon expert third party reviewer(s) to review technical aspects of the final mitigation plans to ensure implementation of the plans will adequately meet ECA/Shoreline mitigation requirements as provided as provided in the ECAR. Third party reviews may include, but are not limited to, review of design elements relating to wetland and buffer vegetation planting and invasive vegetation management, hydrology and drainage design, and soils/geology.

4. **Environmental Critical Area Technical Memorandum**

A revised Environmental Critical Area Technical Memorandum or addendum to the report should be provided to DPD that clearly updates, as needed, all information in this report relevant to the environmental impacts and/or mitigation based on the final design for the Portage Bay Bridge and final design of the Magnuson Park mitigation projects.

5. **Additional Plan Submittals**

In addition to the information described above, WSDOT or its contractor shall prepare and provide copies to DPD of the Community Construction Management Plan as detailed in condition # 6, to be referenced on all permit submittals, and maintained in both the contractor's construction office and any on-site construction offices. More information on this plans is contained or referenced in the application submittal materials for this project to DPD, including the Portage Bay ECAR, the FEIS (e.g., Chapter 6) and the relevant Discipline Reports for the EIS, as well as WSDOT's Highway Runoff Manual (HRM). These plans shall include all project-specific Best Management Practices that go beyond standard BMPs described in the HRM and are necessary due to the nature of this project and its location. These project-specific BMPs are summarized in the application material for this project (e.g., Sections 6.0 and 7.0 of the Shoreline Application project description and supplemental information, dated November 29, 2011) as well as the shoreline and SEPA analysis above.

6. **The Community Construction Management Plan**

The Community Construction Management Plan (CCMP) will be developed with public input for each future construction phase of the 520 Bridge Replacement Project in Seattle that receives funding, including the Portage Bay Bridge section (Master Use Permit No. 3012585) and the mitigation projects to be located at Magnuson Park (Master Use Permit No. 3012591).

Key topics that will be addressed in the CCMP for 3012591:

- Noise
- Vibration. [Note: This section of the CCMP should include details regarding how WSDOT will conduct outreach to potentially affected property owners in the project area and provide pre-construction surveys of residences or other privately-owned structures to establish baseline for potential impacts due to vibration during construction. This section shall include details for how claims of damage clearly caused by construction will be resolved.]
- Air quality and fugitive dust
- Visual quality: aesthetics, glare, lighting

- Traffic and transportation (haul routes, traffic, detours, street parking, damage resulting from heavy trucks and hauling, access, including emergency service access)
- Utilities and services
- Vegetation management and erosion control
- In-water work (construction barges, work bridges, pontoon moorage, pontoon towing, and boat navigation)

Prior to the Start of Construction

7. Provision of Additional Plans

The following plans, as applicable to this project, shall also be fully prepared and provided to DPD prior to the start of any construction activities for this project.

a. Stormwater Pollution Prevention Plan (SWPP)

The SWPPP for this project shall be completed and provided to DPD prior to any construction activities on this project. This plan is intended to address water quality concerns from stormwater and other project related process water. The Temporary Erosion and Sediment Control (TESC) Plan and the Spill Prevention, Control, and Countermeasures (SPCC) Plan will implement the requirements of the SWPPP.

b. Temporary Erosion and Sediment Control Plan (TESCP)

The TESCP shall outline the design and construction specifications for BMPs to be used to identify, reduce, eliminate, or prevent sediment and erosion problems. It would include environmental standards based on state regulations, such as turbidity and total suspended solids (TSS) levels in stormwater discharged from construction staging and work areas. This Plan will address the following elements:

1) Marking clearing limits
2) Establishing construction access
3) Controlling flow rates
4) Installing sediment controls
5) Stabilizing soils
6) Protecting slopes
7) Protecting drain inlets
8) Stabilizing channels and outlets
9) Controlling pollutants
10) Controlling dewatering
11) Maintaining BMPs
12) Managing the project

c. Spill Prevention, Control and Countermeasures Plan

The Spill Prevention, Control and Countermeasures Plan shall outline requirements for spill prevention, responsible personnel, spill reporting processes and forms, stile information including site plans inspection protocols, equipment, material containment measures, and spill response procedures.

d. Concrete Containment and Disposal Plan

The Concrete Containment and Disposal Plan shall outline the management, containment, and disposal of concrete and discuss BMPs that would be used to prevent the discharge of stormwater or other materials with an elevated pH. Any collected wastes with an elevated pH will be treated prior to discharge to surface or groundwater or will be discharged to a sanitary sewer or similar system in the compliance with regulatory approvals.

e. Water Quality Monitoring Plan

The contents of the Water Quality Monitoring Plan are described in the HRM and include monitoring or sampling locations, procedures, reporting and identification of the applicable water quality standards from regulations or project approvals.

f. Fugitive Dust Control Plan

The Fugitive Dust Control Plan shall outline measures to prevent generation of fugitive dust from exposed soil, construction traffic, and material stockpiles. This plan will be prepared to address air quality in compliance with a Memorandum of Agreement between WSDOT and the Puget Sound Clean Air Agency.

g. Geotechnical Report

Plans shall be submitted to DPD that clearly demonstrate, at least conceptually, that all aspects of the development including temporary structures and earthwork activities needed to construct the proposed development will be confined to the public right-of-way. Building permits may be required if temporary or permanent encroachments on or beneath adjacent private property are needed to construct the development.

h. WSDOT and/or its contractor shall obtain all required permits and approvals from other local, state and federal authorities, including King County, Washington Department of Fish and Wildlife, Washington Department of Natural Resources, Washington Department of Ecology, U.S. Army Corps of Engineers, Puget Sound Clean Air Agency, OSHA, and any others that apply to this project.

<u>During Construction</u>

8. The contractor and WSDOT shall be responsible for compliance with each of the Plans described above; including all components of the CCMP and all construction-related Best Management Practices summarized in the FEIS and associated Discipline Reports and submittal materials for the application for this project, including the Environmental Critical Area Technical Memorandum for the Portage Bay Bridge.

9. The contractor and WSDOT shall be responsible for compliance with the City of Seattle Noise Regulations or the modified requirements listed in any approved Noise Variances.

10. The contractor and WSDOT shall be responsible for implementing fish and wildlife protection and enhancement recommendations made by Washington Department of Fish and

Wildlife to WSDOT through the HPA process and consultation with WDFW's wildlife experts.

11. WSDOT or its contractor shall make available to DPD, upon request, the results of all monitoring reports for potential construction-related impacts such as water quality monitoring, sediment quality monitoring, spill activity, fish or wildlife disturbances etc.

Within Six Months of Completion of Habitat Mitigation and Revegetation Efforts.

12. WSDOT or its contractor shall supply provide DPD with as-built plans for this project showing all development, including landscape planting and grading.

For Life of the Project

13. All operational Best Management Practices identified in the 2011 FEIS for this project, associated Discipline Reports, and the Portage Bay ECAR shall be implemented and enforced.

14. WSDOT or its contractor shall provide DPD copies of monitoring reports associated with performance this mitigation project.

Signature: (signature on file) Date: January 17, 2012
Ben Perkowski, Senior Land Use Planner
Department of Planning and Development